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Morbidity and Mortality Weekly Report

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Prepared by the COMMUNICABLE DISEASE CENTER 633-3311

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PROVISIONAL INFORMATION ON SELECTED NOTIFIABLE DISEASES IN THE UNITED STATES AND ON DEATHS IN SELECTED CITIES FOR WEEK ENDED NOVEMBER 28, 1964

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DIPHTHERIA

Two hundred and forty-nine cases of diphtheria have been reported in the United States thus far in 1964. There were 251 cases during a comparable period in 1963.

During all of 1963, 314 cases of diphtheria were reported in the United States. This number is the lowest recorded for any year and is a continuation of the decline in cases since the 1921 peak of 207,000. During this interval, the case rate has fallen from 201.4 per 100,000 to 0.17. There were 45 deaths due to diphtheria recorded during 1963. (See fig. 1.)

Despite this tremendous decrease in incidence, and the introduction of antitoxin and antibiotics, the case-fatality ratio has remained relatively constant. Since 1921, it has varied between 6 and 11 percent. However, in 1963, the case-fatality ratio increased to 14.3 percent resulting in the highest diphtheria case-fatality ratio ever recorded as shown in figure 2. (See fig. 1 opposite and fig. 2 on page 422.)

EPIDEMIOLOGIC NOTES

Figure 1.

REPORTED DIPHTHERIA IN THE UNITED STATES, 1920 - 1963

Source: National Morbidity Reports

(Please continue to page 422)

Table 1. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

(Cumulative totals include revised and delayed reports through previous weeks)

Disease	48th Week Ended			Cumulative, First 48 Weeks		
	November 28, 1964	November 30, 1963	Median 1959 - 1963	1964	1963	Median 1959 - 1963
Aseptic meningitis	39	27	---	2,001	1,706	---
Brucellosis	7	3	8	372	337	545
Diphtheria	2	5	13	249	251	527
Encephalitis, primary infectious	43	17	---	3,028	1,437	---
Encephalitis, post-infectious	7		---	748		---
Hepatitis, infectious including serum hepatitis	554	557	912	34,959	39,642	39,642
Measles	2,272	2,327	3,582	448,373	373,642	405,590
Meningococcal infections	41	26	37	2,496	2,165	2,030
Poliomyelitis, Total	1	5	22	112	417	1,280
Paralytic	1	5	20	88	358	835
Nonparalytic	-	-	---	12	42	---
Unspecified	-	-	---	12	17	---
Streptococcal Sore Throat and Scarlet fever	6,327	5,571	---	360,736	309,615	---
Tetanus	3	5	---	253	261	---
Tularemia	4	5	---	304	269	---
Typhoid fever	5	8	11	415	499	769
Rabies in Animals	98	41	52	4,158	3,477	3,365

Table 2. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	4	Psittacosis:	42
Botulism:	15	Rabies in Man:	1
Leptospirosis:	99	Smallpox:	-
Malaria:	90	Typhus-	
Plague:	-	Murine:	23
		Rky Mt. Spotted: Md. - 1, La. - 1	220

DIPHTHERIA *(Continued from front page)*

Diphtheria occurs more frequently in the South; and in 1963, 56 percent of all cases were reported from the 16 Southern States as compared to 39 percent in the Northeast and North Central States and 5 percent in the Western States.

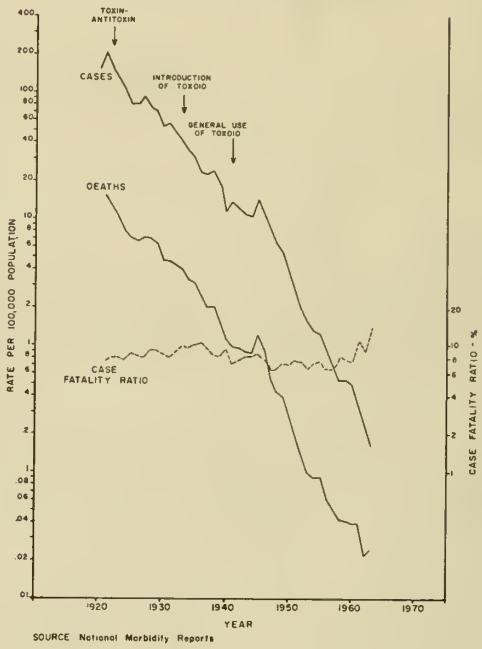
An analysis of individual case reports to the CDC Diphtheria Surveillance Unit shows that diphtheria remains primarily a disease of children although adult cases have increased from 18 to 26 percent of the national total during the last 5 years. Since 1959, the attack rate for nonwhites has remained 6 times greater than that in the white population. In 1963, the case rate for whites was 0.10 per 100,000; for nonwhites it was 0.67 per 100,000.

From reports received by the Diphtheria Surveillance Unit, it is clear that the vaccine affords a high degree of protection not only against acquisition of the disease but also serves to protect against its serious complications. Death rarely occurs among adequately immunized individuals or among those who have received a full course of protection. (See fig. 3 below.)

Three recent outbreaks in California, Minnesota, and New Mexico are described this week.

Figure 2

DIPHTHERIA—REPORTED CASE, DEATH AND CASE FATALITY RATES
UNITED STATES, 1920-1963



SOURCE National Morbidity Reports

Figure 3.

DIPHTHERIA DEATHS, NON-FATAL CASES, AND CARRIERS
BY IMMUNIZATION STATUS
UNITED STATES, 1963

IMMUNIZATION STATUS*	DEATHS NO.	DEATHS %	NON-FATAL CASES NO.	NON-FATAL CASES %	CARRIERS NO.	CARRIERS %
■ FULLY	0	0	25	11	45	41
⊘ LAPSED	2	6	38	16	13	12
⊟ INADEQUATE	5	14	29	12	8	7
☐ NONE	28	80	141	61	43	39
TOTAL	35	100	233	100	109	100
UNKNOWN STATUS	4		23		32	
TOTAL REPORTED	39		256		141	

Source: Diphtheria Surveillance Unit

*The criteria used in defining immunization status is as follows:

Fully vaccinated – A completed primary series (3 or more injections) or completed primary series plus booster, obtained within 4 years of case onset.

Lapsed – A completed primary series, or a completed primary series plus booster, obtained more than 4 years prior to case onset.

Inadequate – An uncompleted primary series, one or 2 immunizations involving diphtheria toxoid, at any time in the past.

Unimmunized – At no time prior to onset, had the patient received diphtheria toxoid.

EPIDEMIOLOGIC REPORTS

DIPHTHERIA – Minnesota

During October an outbreak of 6 cases of diphtheria occurred in a low income area in Minneapolis. Five cases occurred among pupils in an elementary school. The sixth case was from a nearby school. This sixth case had 2 siblings in the involved elementary school including a brother in kindergarten. Cases were generally mild and are shown below:

Age	Sex	Onset	Immunization Status	Severity	Grade
5	F	10-1	None	Moderate	Kindergarten
5	F	10-8	None	Mild	Kindergarten
5	M	10-15	Inadequate	Mild	Kindergarten
6	M	10-16	Fully	Moderate	Grade I *
5	M	10-21	None	Mild	Kindergarten
7	M	10-22	Inadequate	Moderate	Grade III

*Attends a different school than the other cases but has a sibling who is a known carrier in the kindergarten class where the other cases occurred.

Extensive culturing of school and household contacts, utilizing guinea pig virulence tests, by the Minneapolis Division of Public Health and the Division of Medical Laboratories of The Minnesota Department of Health revealed a total of 9 carriers. An additional 7 suspect carriers were discovered in whose cultures suspicious bacilli were found, but whose virulence tests were unsuccessful. In addition, in 3 individuals, nonvirulent *C. diphtheriae* were found. It is of interest that 4 of the carriers yielded Intermedius type organisms. This type is not usually found in the Minneapolis area.

Three of the 6 cases had never been immunized, 2 had inadequate immunization and 1 had been fully immunized. Among the 9 carriers, 3 were inadequately immunized, 3 had lapsed immunization and 3 were fully immunized.

(Reported by D. S. Fleming, M.D., Director, Division of Disease Prevention and Control, Minnesota Department of Health, and C. B. Nelson, M.D., Chief, Section of Acute Communicable Diseases, Minnesota Department of Health.)

DIPHTHERIA – California

Seventeen cases of diphtheria with 3 deaths have occurred in Los Angeles County from November 1 to December 2, 1964. All of the cases are related to four family groups. Four of the patients developed diphtheric myocarditis. In addition to these known cases, 48 suspected cases have been hospitalized either because of a clinical appearance suggesting diphtheria or positive throat cultures.

(Reported by Herbert Cowper, M.D., Chief, Acute Communicable Disease Division, Los Angeles County Health Department, and Dr. Philip K. Condit, Chief, Bureau of Communicable Diseases, California State Department of Health.)

DIPHTHERIA – New Mexico

One laboratory-confirmed case and 3 clinically diagnosed cases of diphtheria have occurred in Deming, New Mexico, 65 miles north of the Mexico border. In addition, at least 10 cases occurring in Palomas, Mexico are known to New Mexico health authorities. Two of the Mexican children expired while hospitalized in New Mexico and 1 of the Deming cases was fatal. All deaths occurred in unimmunized children under 4 years of age.

The Pan American Sanitary Bureau is carrying out extensive immunizations in the Palomas area and New Mexico health authorities have established vaccination clinics in Columbus (adjacent to Palomas) while private physicians are vaccinating in Deming. No new cases have occurred in the past 4 days.

(Reported by Dr. H. G. Doran, State Epidemiologist, New Mexico Department of Public Health)

BOTULISM – Kansas

On Wednesday, November 18, 177 teen-agers participated in a music festival at Herndon, Kansas (population 321). Most of these visitors took their meals at the Herndon school but several ate at the 2 local restaurants.

On November 19, after returning to their homes, some of the participants became ill. Clinical signs and symptoms suggested botulism in 7 of the cases. Five of these 7 cases were hospitalized, 1 in Hayes, Kansas, and 4 in Denver, Colorado. One of the 5 hospitalized patients died and another continues to be confined to a respirator. Sera from 3 of these patients were tested for botulinum toxin by Laboratory Branch, CDC. The results of these tests indicate that *Clostridium botulinum* type A was the etiologic agent.

Investigations by the Kansas State Department of Health revealed that a common factor in each case was the consumption of hamburgers at 1 Herndon restaurant. No cases occurred in students who ate at the school or the other restaurant in town. Nine students consumed hamburgers at the restaurant in question. Seven of these

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Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
NOVEMBER 28, 1964 AND NOVEMBER 30, 1963 (48TH WEEK)

Area	Aseptic Meningitis		Encephalitis Primary	Encephalitis Post-Inf.	Poliomyelitis, Total Cases				Poliomyelitis, Paralytic			
							Cumulative				Cumulative	
	1964	1963	1964	1964	1964	1963	1964	1963	1964	1963	1964	1963
UNITED STATES...	39	27	43	7	1	5	112	417	1	5	88	358
NEW ENGLAND.....	1	-	2	1	-	1	2	9	-	1	2	9
Maine.....	-	-	-	-	-	1	-	3	-	1	-	3
New Hampshire.....	-	-	-	-	-	-	-	-	-	-	-	-
Vermont.....	-	-	-	-	-	-	-	1	-	-	-	1
Massachusetts.....	-	-	1	-	-	-	-	3	-	-	-	3
Rhode Island.....	1	-	-	1	-	-	-	-	-	-	-	-
Connecticut.....	-	-	1	-	-	-	2	2	-	-	2	2
MIDDLE ATLANTIC.....	4	1	21	2	-	-	15	120	-	-	13	97
New York City.....	-	-	7	-	-	-	2	-	-	-	2	-
New York, Up-State.	1	1	2	-	-	-	10	9	-	-	9	6
New Jersey.....	2	-	11	-	-	-	3	4	-	-	2	3
Pennsylvania.....	1	-	1	2	-	-	-	107	-	-	-	88
EAST NORTH CENTRAL...	4	4	5	-	1	-	24	58	1	-	16	47
Ohio.....	2	1	4	-	-	-	4	8	-	-	2	4
Indiana.....	-	-	-	-	1	-	9	4	1	-	6	3
Illinois.....	1	2	-	-	-	-	5	17	-	-	5	16
Michigan.....	-	1	-	-	-	-	3	20	-	-	2	20
Wisconsin.....	1	-	1	-	-	-	3	9	-	-	1	4
WEST NORTH CENTRAL...	-	2	3	-	-	-	10	7	-	-	8	6
Minnesota.....	-	2	-	-	-	-	3	4	-	-	2	4
Iowa.....	-	-	1	-	-	-	1	-	-	-	1	-
Missouri.....	-	-	-	-	-	-	4	-	-	-	3	-
North Dakota.....	-	-	-	-	-	-	1	1	-	-	1	-
South Dakota.....	-	-	1	-	-	-	-	1	-	-	-	1
Nebraska.....	-	-	-	-	-	-	-	1	-	-	-	1
Kansas.....	-	-	1	-	-	-	1	-	-	-	1	-
SOUTH ATLANTIC.....	2	4	5	-	-	3	34	97	-	3	28	84
Delaware.....	1	3	-	-	-	-	-	1	-	-	-	1
Maryland.....	-	-	-	-	-	-	1	1	-	-	1	1
Dist. of Columbia..	1	-	-	-	-	-	-	1	-	-	-	-
Virginia.....	-	-	1	-	-	-	4	21	-	-	4	16
West Virginia.....	-	-	1	-	-	-	1	3	-	-	1	3
North Carolina.....	-	-	-	-	-	-	12	5	-	-	7	4
South Carolina.....	-	-	-	-	-	-	3	8	-	-	3	7
Georgia.....	-	-	-	-	-	-	3	21	-	-	3	20
Florida.....	-	1	3	-	-	3	10	36	-	3	9	32
EAST SOUTH CENTRAL...	1	3	4	-	-	1	6	73	-	1	5	67
Kentucky.....	-	1	1	-	-	-	-	-	-	-	-	-
Tennessee.....	-	-	1	-	-	1	3	11	-	1	2	10
Alabama.....	1	2	-	-	-	-	2	53	-	-	2	48
Mississippi.....	-	-	2	-	-	-	1	9	-	-	1	9
WEST SOUTH CENTRAL...	7	4	-	-	-	-	10	26	-	-	8	25
Arkansas.....	-	-	-	-	-	-	-	4	-	-	-	3
Louisiana.....	1	-	-	-	-	-	-	14	-	-	-	14
Oklahoma.....	-	3	-	-	-	-	3	1	-	-	2	1
Texas.....	6	1	-	-	-	-	7	7	-	-	6	7
MOUNTAIN.....	3	-	-	-	-	-	8	6	-	-	5	5
Montana.....	-	-	-	-	-	-	1	-	-	-	1	-
Idaho.....	-	-	-	-	-	-	1	1	-	-	1	1
Wyoming.....	-	-	-	-	-	-	2	-	-	-	2	-
Colorado.....	3	-	-	-	-	-	1	1	-	-	1	1
New Mexico.....	-	-	-	-	-	-	3	1	-	-	-	-
Arizona.....	-	-	-	-	-	-	-	3	-	-	-	3
Utah.....	-	-	-	-	-	-	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	17	9	3	4	-	-	3	21	-	-	3	18
Washington.....	-	-	-	-	-	-	-	2	-	-	-	2
Oregon.....	-	-	-	-	-	-	1	2	-	-	1	1
California.....	16	9	3	4	-	-	2	17	-	-	2	15
Alaska.....	-	-	-	-	-	-	-	-	-	-	-	-
Hawaii.....	1	-	-	-	-	-	-	-	-	-	-	-
Puerto Rico	-	-	-	-	-	-	-	5	-	-	-	4

Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
NOVEMBER 28, 1964 AND NOVEMBER 30, 1963 (48TH WEEK) - CONTINUED

Area	Brucellosis		Diphtheria		Infectious Hepatitis including Serum Hepatitis						Typhoid Fever	
		Cum.		Cum.	Total	Under 20 years	20 years and over	Age Unknown	Cumulative			Cum.
	1964	1964	1964	1964	1964	1964	1964	1964	1964	1963	1964	1964
UNITED STATES...	7	372	2	249	554	251	258	45	34,959	39,642	5	415
NEW ENGLAND.....	-	2	-	44	51	22	27	2	3,140	4,532	-	17
Maine.....	-	-	-	39	10	7	2	1	973	2,053	-	-
New Hampshire.....	-	-	-	-	5	2	3	-	246	552	-	-
Vermont.....	-	-	-	-	-	-	-	-	366	125	-	-
Massachusetts.....	-	2	-	5	19	9	9	1	723	1,135	-	8
Rhode Island.....	-	-	-	-	8	-	8	-	202	107	-	6
Connecticut.....	-	-	-	-	9	4	5	-	630	560	-	3
MIDDLE ATLANTIC.....	2	8	-	10	114	55	59	-	7,658	7,839	1	68
New York City.....	-	-	-	5	27	10	17	-	1,201	1,223	1	34
New York, Up-State.	2	4	-	-	49	27	22	-	3,317	3,372	-	15
New Jersey.....	-	-	-	2	10	2	8	-	1,255	1,159	-	2
Pennsylvania.....	-	4	-	3	28	16	12	-	1,885	2,085	-	17
EAST NORTH CENTRAL...	-	49	-	10	103	55	38	10	5,588	6,346	1	81
Ohio.....	-	5	-	-	34	17	16	1	1,474	1,743	1	21
Indiana.....	-	1	-	1	3	2	1	-	463	584	-	22
Illinois.....	-	28	-	8	19	10	9	-	1,057	1,321	-	23
Michigan.....	-	6	-	1	34	22	12	-	2,208	2,408	-	11
Wisconsin.....	-	9	-	-	13	4	-	9	386	290	-	4
WEST NORTH CENTRAL...	3	158	2	36	42	22	18	2	1,930	1,770	-	30
Minnesota.....	-	9	-	18	-	-	-	-	218	273	-	3
Iowa.....	-	99	-	-	6	4	2	-	341	317	-	4
Missouri.....	-	10	-	1	19	13	6	-	482	596	-	13
North Dakota.....	-	2	-	2	-	-	-	-	63	95	-	2
South Dakota.....	2	20	1	3	-	-	-	-	134	124	-	1
Nebraska.....	-	13	1	5	4	1	1	2	69	122	-	3
Kansas.....	1	5	-	7	13	4	9	-	623	243	-	4
SOUTH ATLANTIC.....	1	39	-	65	41	17	23	1	3,252	4,012	-	94
Delaware.....	-	-	-	-	-	-	-	-	73	76	-	-
Maryland.....	-	-	-	1	8	4	3	1	588	504	-	8
Dist. of Columbia..	-	-	-	-	-	-	-	-	68	108	-	-
Virginia.....	-	17	-	-	5	4	1	-	517	787	-	11
West Virginia.....	-	-	-	-	5	4	1	-	460	613	-	-
North Carolina.....	-	4	-	1	7	1	6	-	530	1,027	-	20
South Carolina.....	-	-	-	7	5	1	4	-	147	161	-	12
Georgia.....	1	14	-	30	1	1	-	-	106	167	-	27
Florida.....	-	4	-	26	10	2	8	-	763	569	-	16
EAST SOUTH CENTRAL...	-	18	-	30	43	23	19	1	2,371	3,609	-	42
Kentucky.....	-	6	-	-	11	8	3	-	832	1,058	-	10
Tennessee.....	-	5	-	2	16	8	7	1	842	1,391	-	19
Alabama.....	-	4	-	23	12	5	7	-	462	579	-	7
Mississippi.....	-	3	-	5	4	2	2	-	235	581	-	6
WEST SOUTH CENTRAL...	-	45	-	38	41	27	14	-	2,726	2,709	2	35
Arkansas.....	-	6	-	3	7	5	2	-	273	294	-	15
Louisiana.....	-	4	-	12	6	5	1	-	654	554	1	6
Oklahoma.....	-	8	-	-	5	3	2	-	131	120	-	9
Texas.....	-	27	-	23	23	14	9	-	1,668	1,741	1	5
MOUNTAIN.....	-	30	-	2	37	7	2	28	2,114	2,519	-	12
Montana.....	-	-	-	-	4	-	-	4	180	327	-	-
Idaho.....	-	-	-	-	7	-	-	7	299	426	-	-
Wyoming.....	-	-	-	-	3	1	1	1	86	38	-	1
Colorado.....	-	-	-	-	9	-	-	9	554	499	-	-
New Mexico.....	-	1	-	1	6	5	1	-	300	309	-	4
Arizona.....	-	2	-	1	7	-	-	7	465	577	-	7
Utah.....	-	26	-	-	1	1	-	-	179	325	-	-
Nevada.....	-	1	-	-	-	-	-	-	51	18	-	-
PACIFIC.....	1	23	-	14	82	23	58	1	6,180	6,306	1	36
Washington.....	-	-	-	13	5	-	5	-	620	1,050	-	2
Oregon.....	-	2	-	-	6	3	2	1	637	746	-	-
California.....	1	21	-	1	67	19	48	-	4,532	4,270	1	34
Alaska.....	-	-	-	-	4	1	3	-	275	197	-	-
Hawaii.....	-	-	-	-	-	-	-	-	116	43	-	-
Puerto Rico	-	-	1	13	12	7	5	-	925	814	-	13

Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
NOVEMBER 28, 1964 AND NOVEMBER 30, 1963 (48TH WEEK) - CONTINUED

Area	Measles	Meningococcal Meningitis			Streptococcal Sore Throat and Scarlet Fever		Tetanus		Tularemia		Rabies in Animals	
			Cumulative					Cum.		Cum.		Cum.
	1964	1964	1964	1963	1964	1963	1964	1964	1964	1964	1964	1964
UNITED STATES...	2,272	41	2,496	2,165	6,327	5,571	3	253	4	304	98	4,158
NEW ENGLAND.....	473	1	82	130	660	401	-	9	-	1	-	33
Maine.....	45	-	6	19	37	17	-	-	-	-	-	28
New Hampshire.....	95	-	2	4	5	-	-	-	-	-	-	2
Vermont.....	9	-	4	6	1	1	-	-	-	-	-	2
Massachusetts.....	175	-	31	58	86	75	-	9	-	1	-	1
Rhode Island.....	55	1	11	12	33	87	-	-	-	-	-	-
Connecticut.....	94	-	28	31	498	221	-	-	-	-	-	-
MIDDLE ATLANTIC.....	69	6	329	301	251	104	-	22	-	1	1	117
New York City.....	17	-	45	46	13	14	-	-	-	-	-	-
New York, Up-State.	37	3	100	93	170	50	-	8	-	-	1	109
New Jersey.....	10	-	104	48	33	18	-	6	-	-	-	-
Pennsylvania.....	5	3	80	114	35	22	-	8	-	1	-	8
EAST NORTH CENTRAL...	416	2	341	334	486	503	1	49	1	24	4	573
Ohio.....	44	1	89	95	100	102	1	14	1	2	-	290
Indiana.....	48	-	54	44	62	60	-	14	-	2	-	29
Illinois.....	18	1	92	67	48	45	-	13	-	14	1	111
Michigan.....	186	-	75	95	187	213	-	7	-	2	2	57
Wisconsin.....	120	-	31	33	89	83	-	1	-	4	1	86
WEST NORTH CENTRAL...	160	3	143	133	216	236	-	17	2	59	26	1,253
Minnesota.....	1	2	32	27	12	18	-	4	-	2	14	397
Iowa.....	16	1	9	7	60	71	-	6	-	1	5	445
Missouri.....	14	-	64	39	5	1	-	4	1	32	2	184
North Dakota.....	128	-	20	15	90	56	-	-	-	-	1	63
South Dakota.....	1	-	3	7	7	19	-	1	-	15	3	92
Nebraska.....	-	-	6	25	2	-	-	-	-	-	-	35
Kansas.....	NN	-	9	13	40	71	-	2	1	9	1	37
SOUTH ATLANTIC.....	245	8	501	401	625	573	-	61	-	30	13	566
Delaware.....	1	-	7	4	4	4	-	-	-	-	-	-
Maryland.....	1	2	38	57	53	8	-	3	-	-	1	3
Dist. of Columbia..	-	-	16	8	1	-	-	1	-	1	-	-
Virginia.....	25	2	61	86	187	196	-	7	-	7	9	299
West Virginia.....	183	-	35	21	160	178	-	1	-	-	-	36
North Carolina.....	15	3	87	76	23	33	-	15	-	7	-	5
South Carolina.....	5	-	57	22	27	28	-	5	-	-	-	2
Georgia.....	-	-	81	34	5	21	-	4	-	14	2	119
Florida.....	15	1	119	93	165	105	-	25	-	1	1	102
EAST SOUTH CENTRAL...	81	2	189	148	1,084	871	-	32	-	30	30	577
Kentucky.....	1	1	62	32	11	35	-	8	-	2	2	60
Tennessee.....	66	1	58	69	951	766	-	12	-	20	21	434
Alabama.....	12	-	43	24	96	59	-	7	-	3	1	20
Mississippi.....	2	-	26	23	26	11	-	5	-	5	6	63
WEST SOUTH CENTRAL...	169	3	229	196	427	716	1	29	1	106	15	595
Arkansas.....	-	-	31	14	5	8	-	8	-	65	1	143
Louisiana.....	-	-	129	80	4	2	-	4	-	6	4	66
Oklahoma.....	-	1	14	34	1	23	-	1	-	20	1	94
Texas.....	169	2	55	68	417	683	1	16	1	15	9	292
MOUNTAIN.....	362	5	91	76	1,372	1,061	-	6	-	50	-	141
Montana.....	46	-	1	3	31	86	-	-	-	19	-	1
Idaho.....	39	-	4	6	166	78	-	1	-	-	-	-
Wyoming.....	-	-	5	7	83	56	-	2	-	10	-	-
Colorado.....	10	5	21	20	671	413	-	-	-	-	-	8
New Mexico.....	160	-	35	4	154	238	-	1	-	-	-	52
Arizona.....	18	-	8	11	99	80	-	1	-	-	-	66
Utah.....	86	-	7	20	168	103	-	1	-	21	-	3
Nevada.....	3	-	10	5	-	7	-	-	-	-	-	11
PACIFIC.....	297	11	591	446	1,206	1,106	1	28	-	3	9	303
Washington.....	98	-	48	40	335	407	-	3	-	-	-	-
Oregon.....	59	-	25	33	19	15	-	1	-	1	-	11
California.....	94	11	498	348	789	594	-	22	-	2	9	292
Alaska.....	3	-	7	12	23	68	-	-	-	-	-	-
Hawaii.....	43	-	13	13	40	22	1	2	-	-	-	-
Puerto Rico	99	-	32	10	12	6	1	64	-	-	-	25

Table 4 (D). TOTAL DEATHS AMONG PERSONS 65 YEARS AND OVER IN REPORTING CITIES

(Tables 4(A), 4(B), 4(C), and 4(D) will be published in sequence covering a four-week period.)°

Area	For weeks ending			
	11/7	11/14	11/21	11/28
NEW ENGLAND:				
Boston, Mass.	156	147	132	102
Bridgeport, Conn.	28	12	23	28
Cambridge, Mass.	12	13	24	18
Fall River, Mass.	15	14	15	14
Hartford, Conn.	31	29	23	30
Lowell, Mass.	11	18	14	22
Lynn, Mass.	10	14	14	16
New Bedford, Mass.	17	14	13	10
New Haven, Conn.	32	29	23	16
Providence, R.I.	32	42	33	40
Somerville, Mass.	9	13	8	10
Springfield, Mass.	24	42	25	37
Waterbury, Conn.	24	13	19	17*
Worcester, Mass.	39	41	35	38
MIDDLE ATLANTIC:				
Albany, N.Y.	29	36	16	20
Allentown, Pa.	27	24	18	16
Buffalo, N.Y.	94	79	91	70
Camden, N.J.	17	28	28	20
Elizabeth, N.J.	18	23	16	13
Erie, Pa.	21	21	18	26
Jersey City, N.J.	48	45	36	31
Newark, N.J.	47	45	51	28
New York City, N.Y.	1,009	985	1,000	926
Paterson, N.J.	21	26	31	22
Philadelphia, Pa.	238	215	274	353
Pittsburgh, Pa.	89	104	112	58
Reading, Pa.	43	34	41	41
Rochester, N.Y.	70	71	61	85
Schenectady, N.Y.	11	18	12	12
Scranton, Pa.	21	36	20	19
Syracuse, N.Y.	23	43	35	33
Trenton, N.J.	16	28	29	12
Utica, N.Y.	26	16	24	19
Yonkers, N.Y.	20	23	17	14
EAST NORTH CENTRAL:				
Akron, Ohio.	39	45	46	31
Canton, Ohio.	25	23	19	26
Chicago, Ill.	337	384	395	384
Cincinnati, Ohio.	94	78	104	79
Cleveland, Ohio.	99	133	93	92
Columbus, Ohio.	79	73	63	56
Dayton, Ohio.	39	47	33	43
Detroit, Mich.	190	214	197	187
Evansville, Ind.	26	20	21	25
Flint, Mich.	22	20	19	16
Fort Wayne, Ind.	25	21	22	23
Gary, Ind.	14	11	15	15*
Grand Rapids, Mich.	22	41	41	39
Indianapolis, Ind.	87	72	86	83
Madison, Wis.	13	21	12	34
Milwaukee, Wis.	71	77	67	69
Peoria, Ill.	16	12	16	18
Rockford, Ill.	17	20	17	19
South Bend, Ind.	24	23	31	18
Toledo, Ohio.	68	59	63	59
Youngstown, Ohio.	37	40	33	43
WEST NORTH CENTRAL:				
Des Moines, Iowa.	38	29	38	19
Duluth, Minn.	13	14	15	9
Kansas City, Kans.	15	13	10	16*
Kansas City, Mo.	77	93	72	81
Lincoln, Nebr.	17	19	19	12
Minneapolis, Minn.	72	74	63	67
Omaha, Nebr.	59	34	44	29
St. Louis, Mo.	105	123	155	95
St. Paul, Minn.	47	35	42	27
Wichita, Kans.	23	21	29	18
SOUTH ATLANTIC:				
Atlanta, Ga.	64	45	68	48
Baltimore, Md.	127	126	116	121
Charlotte, N.C.	28	23	18	14
Jacksonville, Fla.	36	33	29	32
Miami, Fla.	30	44	48	32
Norfolk, Va.	34	27	32	22
Richmond, Va.	44	47	45	39
Savannah, Ga.	15	12	15	10
St. Petersburg, Fla.	64	51	54	53
Tampa, Fla.	39	48	48	41
Washington, D.C.	97	86	100	72
Wilmington, Del.	21	20	19	13
EAST SOUTH CENTRAL:				
Birmingham, Ala.	45	44	53	28
Chattanooga, Tenn.	16	23	29	14
Knoxville, Tenn.	15	25	24	9
Louisville, Ky.	61	68	64	52
Memphis, Tenn.	74	56	49	38
Mobile, Ala.	15	21	18	16
Montgomery, Ala.	17	16	18	10
Nashville, Tenn.	46	51	52	45
WEST SOUTH CENTRAL:				
Austin, Tex.	31	26	15	9
Baton Rouge, La.	21	14	10	13
Corpus Christi, Tex.	9	13	13	6
Dallas, Tex.	70	56	45	61
El Paso, Tex.	14	15	13	16
Fort Worth, Tex.	37	26	40	42
Houston, Tex.	76	71	89	58
Little Rock, Ark.	27	19	25	24
New Orleans, La.	85	72	85	107
Oklahoma City, Okla.	40	30	39	30
San Antonio, Tex.	56	47	58	45
Shreveport, La.	26	23	27	31
Tulsa, Okla.	31	38	23	30
MOUNTAIN:				
Albuquerque, N. Mex.	13	20	20	10
Colorado Springs, Colo.	13	8	13	11
Denver, Colo.	68	52	90	60
Ogden, Utah.	10	8	15	7
Phoenix, Ariz.	62	44	55	53
Pueblo, Colo.	6	7	7	17
Salt Lake City, Utah.	31	26	31	18
Tucson, Ariz.	13	31	27	25
PACIFIC:				
Berkeley, Calif.	11	13	9	15
Fresno, Calif.	32	20	32	25
Glendale, Calif.	12	21	20	11
Honolulu, Hawaii.	19	18	26	22
Long Beach, Calif.	44	49	71	42
Los Angeles, Calif.	266	235	320	256
Oakland, Calif.	53	47	60	52
Pasadena, Calif.	23	13	21	17
Portland, Oreg.	68	33	101	51
Sacramento, Calif.	41	38	26	34
San Diego, Calif.	47	50	60	46
San Francisco, Calif.	80	82	135	94
San Jose, Calif.	19	20	22	18
Seattle, Wash.	72	74	94	71
Spokane, Wash.	28	29	33	23
Tacoma, Wash.	24	29	38	17

*Estimate - based on average percent of divisional total.
Totals for previous weeks include reported corrections.

NOTE: All deaths by place of occurrence.

°Current Week Mortality for 108 Selected Cities

4(A) Total Mortality, all ages..... 10,410
4(B) Pneumonia-Influenza Deaths, all ages..... 424
4(C) Total Deaths under 1 Year of Age..... 651
4(D) Total Deaths, Persons 65 years and over..... 5,797

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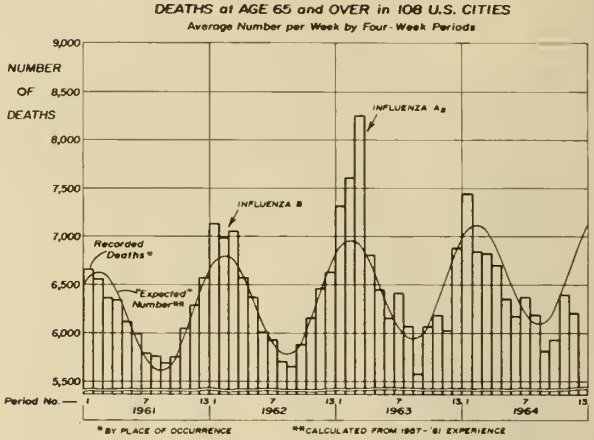
SUMMARY OF DEATHS AMONG PERSONS 65 YEARS AND OVER IN 108 U.S. CITIES

The weekly average number of deaths among persons 65 years and over in 108 cities for the four-week period ending November 28 was 6,201 as compared with an expected weekly average of 6,761.

	Week Ending				4-Week Total	Weekly Average
	11/7	11/14	11/21	11/28		
Observed	6,255	6,173	6,578	5,797	24,803	6,201
Expected	6,655	6,725	6,797	6,867	27,044	6,761
Excess	−400	−552	−219	−1,070	−2,241	−560



(See Table, page 427)

BOTULISM – Kansas

(Continued from page 423)

ate the sliced dill pickle served on the hamburger and 2 did not. All cases occurred in the individuals who also consumed the pickles. The sliced dill pickles served on the hamburgers were home-canned by the proprietor of the restaurant. None of the suspected pickles were available for laboratory examination.

Only 2 previously recorded outbreaks of botulism in the United States have been attributed to pickles. One occurred in the State of Washington in 1925 and the second in California in 1942. In both cases, home-canned dill pickles contaminated with type A botulinum toxin were found to be the source.

(Reported by Dr. Don E. Wilcox, Division of Disease Prevention and Control, Kansas State Department of Health, and Dr. Cecil S. Mollohan, Epidemiology Section, Colorado State Department of Public Health.)

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THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT
COMMUNICABLE DISEASE CENTER
ATLANTA, GEORGIA 30333

NOTES: THESE PROVISIONAL DATA ARE BASED ON WEEKLY TELEGRAMS TO THE COMMUNICABLE DISEASE CENTER BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS.

SYMBOLS: ... DATA NOT AVAILABLE
— QUANTITY ZERO

PROCEDURES FOR CONSTRUCTION OF VARIOUS MORTALITY CURVES MAY BE OBTAINED FROM STATISTICS SECTION, COMMUNICABLE DISEASE CENTER, PUBLIC HEALTH SERVICE, U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, ATLANTA, GEORGIA 30333.

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